

Great Basin Spadefoot

Spea intermontana
Family Pelobatidae



Global Rank: G5

State Rank: S2 (AZ); S3 (CO); S4 (ID, NV, UT, WY); S5 (CA, OR, WA); SR (MT)

Distribution: Formally classified under the genus *Scalphiopus*, the Great Basin spadefoot ranges from extreme southern British Columbia through the Great Basin to extreme northwestern Arizona, and from the eastern edge of the Cascade/Sierra Mountains east to the Rocky Mountains. It extends from sagebrush flats to spruce-fir belts around 9,200 ft. (2,800 m.) in elevation.

Description: Adults reach up to 2.5 in. (6.5 cm.) in snout-vent length. Key characteristics are stocky body, vertical pupils, blunt snout, relatively smooth and dry skin, and a black, sharp-edged "spade" on the underside of each hind foot. Tadpoles reach up to 2.75 in. (7 cm.) in total length with key characteristics of pale tan or gray coloration with brassy flecks, eyes close together and dorsally oriented, prominent nostrils, anteriorly positioned mouth with keratinized beak, and heavy body. The voice of breeding adults is a series of short,



Current range of the Great Basin spadefoot

rapid *wa-wa-wa* calls from a rounded, slightly bilobed vocal sac

Reproduction: Breeding occurs sporadically from April through July, usually after spring rains. Eggs are laid in grape- to plum-sized clusters of 20 to 40 eggs each, usually loosely attached to vegetation, floating sticks, or bottom mud and rocks. Total eggs per female may equal 300 to 500, although up to 800 eggs are known. Eggs often hatch in 2-3 days and larval periods rarely last more than a few weeks as an adaptation to rapidly drying water sources.

Food: Adults are known to eat ants, beetles, grasshoppers, crickets, and flies. Larvae probably eat algae, organic debris, and plant tissue.

Habits: Great Basin spadefoot toads are active on the surface, especially at night. They dig burrows in loose soil or use burrows of small mammals to escape cold, hot, and dry weather. They both hibernate and aestivate. They use a variety of temporary and permanent waters for breeding. They are prey to a number of mammalian and avian predators and probably fishes. Adult spadefoots have noxious skin secretions known to repel predators and cause sneezing in humans.

Management Implications: The species may have expanded its range in some areas by using irrigation ditches. Recent conversions to sprinkler irrigation systems may have reversed that expansion. Also, conversion of sagebrush deserts to pastures or grain crops may have eliminated the toad from parts of its former range.

Important References: Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. The Peterson Field Guide Series, Houghton Mifflin Company, New York, NY; Csuti, B., A.J. Kimerling, T.A. O'Neil, M.M.

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